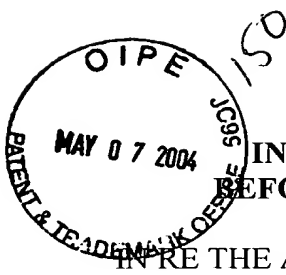


AF/3764 \$



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCE

IN RE THE APPLICATION OF

Eleanor L. Schuler, et al.

SERIAL NO. 09/922,967

FILED: November 14, 2001

FOR: Device and Procedure To Treat Cardiac
Atrial Arrhythmias

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)
) Examiner: Jerome W. Donnelly
)
) Group Art Unit No. 3764
)
) Customer number: 23644
)
) Docket No. 920607-906875

I hereby certify that this correspondence is being deposited
with the United States Postal Service as first class mail in an
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Name of person signing: Jamie L. Mucher
Signature: Jamie L. Mucher

BRIEF ON APPEAL

Honorable Director of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

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TECHNOLOGY CENTER R3708

This appeal is from the Examiner's final rejection of November 28, 2003 in which all
pending claims were rejected. A timely Notice of Appeal was filed on March 1, 2004 with the
required fee of \$165.00 (small entity).

This brief is being filed in triplicate, along with the current required \$165.00 fee pursuant
to 37 CFR Section 1.17(c).

(1) Real Party in Interest

This application is assigned to Science Medicus, Inc., who is the real party in interest.

(2) Related Appeals and Interferences

There are no related appeals or interferences that will directly affect or directly be affected
by or having any bearing on the decision of the present appeal.

(3) Status of Claims

This application was filed with claims 1 through 17. Following a restriction under 35 U.S.C. Section 121, the Applicant elected to proceed on claims 12-17. It is the rejection of claims 12 through 17 that is appealed. The claims (12 through 17) as currently pending are set forth in the Appendix.

(4) Status of Amendments

No amendments have been made after the final rejection.

(5) Summary of Invention

The present invention relates to a method for non-invasively controlling human and animal hearts in a manner that treats emergency arrhythmias of the cardiac atrium. The method claimed in the application recognizes that an internal medical disease can be treated, not by using chemicals or high-voltage shocking, but rather by applying pressure to a very specific area of ones neck. The non-invasive stimulation method consists of placing the non-invasive stimulation device in the vicinity of a “target zone,” which is shown in Figure 2 of the present application. This “target zone” is defined as the carotid artery bifurcation where arises a carotid sinus and body which contains afferent sensory nerves that travel to the medulla oblongata of the brain, and either applying pressure in place, or moving the device along the target zone.

By applying pressure to the “target zone” one can control a serious heart condition. The method can be accomplished either with or without vibration. By applying pressure to the “target zone” one can modulate the manner in which the brain communicates with the heart through the afferent and efferent nerves located in the carotid body and sinus, thereby manipulating the heart out of an arrhythmic state. A serious internal medical condition is thus controlled by external

stimulation in an area remote from where treatment occurs.

(6) Issues

The following issues is presented:

1. Whether claims 12-17 are anticipated under 35 U.S.C. Section 102(b) by Libin (U.S. 4,632,095) (hereinafter referred to as "Libin").

(7) Grouping of Claims

The claims may all be considered in one group.

(8) Argument

It is the Examiner's view that the currently pending claims 12 through 17 are anticipated by Libin. The Examiner's position as set out in the Office Action mailed April 16, 2003, and reiterated in the final Office Action mailed November 28, 2003, is, simply stated, that Libin teaches a hand held vibrating massager that can be applied to the neck and cause nerve stimulation, and the claims are therefore met. That, however, ignores the specific language of the claims.

The present application requires stimulation to be applied to a specific location on the neck for controlling an internal medical disorder, cardiac atrial arrhythmias. This location, or "target zone" as claimed, is not just anywhere, but rather is specifically identified as being the area of the neck comprising afferent nerves of the carotid body and sinus. The "target zone" is specifically shown in Figure 2 of the application as running along the area starting just below the angle of the jaw below the ear to a region of the clavicular notch at the top of the sternum. This "target zone" is located on both the right and left sides of the neck. As disclosed in the application, the reason this portion of the neck is manipulated is that the carotid body and sinus

contain afferent sensory nerves that travel to and from the heart and the medulla oblongata of the brain. It has been found by the inventors that non-invasive vibratory stimulation of the carotid body and sinus in the manner consistent with the present application will control cardiac atrial arrhythmias, a new discovery not even hinted by Libin.

The invention of the present application is not meant for or suggested for manipulation of muscles and connective tissues. Rather it is to broadcast a specific vibrational or seismic communication to afferent bio-sensors located at the carotid bifurcation. These seismic sensitive receptive places are located in and on the vascular structures located in the neck. The receiving of the correct frequency of seismic response in this specific zone is not to treat it as a sprain, strain or sports injury, but rather to speak directly to the neuro-signal responsive targets to cause the atrial heart-beat to be medically treated so as to stop the fibrillating upper chamber of the heart.

In contrast, Libin teaches a therapeutic relaxation vibrator to improve local blood circulation. Libin does not teach a specific location that can be targeted in order to control cardiac atrial arrhythmias, and never comes close to defining a target zone, let alone the specific zone claimed. Rather, Libin merely points to a number of locations on the body that when a vibrator is applied to them will relax those locations. The Examiner contends that Figure 5 of the Libin patent discloses the neck as being a location where the relaxation vibrator can be applied. In fact, the Libin patent shows the front and sides of the neck as being two of twenty-nine general locations of where the relaxation massager can be applied.

The Libin patent does not disclose or suggest a method for controlling cardiac atrial arrhythmias or anything related, as specifically taught in the present application. Figure 5 of the Libin patent shows twenty-nine general locations where the relaxation massager can apply. The Libin patent does not teach any specific health benefits other than the application of the vibrator to pressure points will result in a "stimulatory response." Libin did not discover use of a device

to control cardiac atrial arrhythmias, never contemplated such a use, never suggests or implies such a use, and clearly, as specifically described, is related only to "electrical massagers" for "acupressure therapy" (col. lines 6-9) to relieve "various body aches and paint "(col. 3, lines 46-47). That falls for short of disclosing a method for treating arrhythmias, a medical disorder.

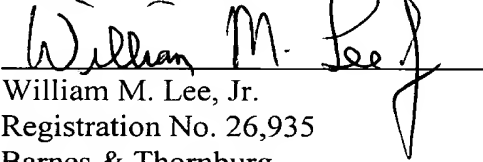
The present application claims that when a very specific "target zone" is stimulated one can control a serious problem cardiac atrial arrhythmias. There is nothing disclosed in the Libin patent which remotely approaches the teaching of controlling cardiac atrial arrhythmias. While the claims may be simple, the inventors are entitled to claims adequately defining their invention, and nothing in the prior art suggests anything of the nature specifically claimed.

The present application is, therefore, neither anticipated nor rendered obvious by Libin.

Reversal of the Examiner's rejection is respectfully requested.

May 3, 2004

Respectfully submitted,



William M. Lee, Jr.

Registration No. 26,935

Barnes & Thornburg

P.O. Box 2786

Chicago, Illinois 60690-2786

(312) 214-4800

(312) 759-5646 (fax)

APPENDIX

12. A method for non-invasively treating cardiac irregularities via stimulation in a target zone comprising afferent nerves of the carotid body and sinus on the right or left side of the human neck, comprising the steps of:

providing a device shaped to contact the neck in the vicinity of the target zone;

applying pressure in the vicinity of the target zone to cause nerve stimulation.

13. The method according to claim 12, wherein the device includes a vibration member, and said pressure can be applied with the vibration member of the device turned on.

14. The method according to claim 12, including a vibration member, and in which the step of applying pressure includes moving the vibration member along at least a portion of the target zone located centrally between an area starting just below the angle of the jaw below the ear to a region of the clavicular notch at the top of the sternum.

15. The method according to claim 12, including target zone stimulation using vibration when applying pressure.

16. A method for non-invasively treating atrial irregularities via nerve stimulation, comprising the steps of:

applying pressure in the vicinity of a target zone comprising afferent nerves of the carotid body and sinus with a device; and

maintaining pressure for a period of time sufficient to reduce the atrial arrhythmia.

17. The method according to claim 16, including target zone stimulation using vibration when applying pressure.